Syntrophic acetate-oxidizing bacteria aid in wastewater digestion

Stefan Dyksma

Lukas Jansen

Claudia Gallert

Video Byte

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Abstract

Syntrophic acetate-oxidizing bacteria (SAOB) could be a living source of clean energy. Through anaerobic digestion, SAOB turn wastewater sludge and biowaste into methane. Unfortunately, knowledge about SAOB remains limited. To find out more about these important microbes, researchers used metagenomics to study bacteria from a solid-state biowaste digester. They found that SAOB species, including Firmicutes, were abundant, including bacteria with the potential for syntrophic acetate oxidation and energy conservation. The study suggests the existence of a remarkable anaerobic digestion ecosystem, where diverse and novel specialized bacteria aid in dry fermentation of biowaste to produce clean energy.